International Journal papers

1991

[P.1] A. Baschirotto, R. Alini, and R. Castello
"BiCMOS operational amplifier with precise and stable dc-gain for high-frequency switched-capacitor filters"
IEE Electronics Letters - 18th July 1991, Vol. 27, no. 15, pag. 1338-1340

"An analog BiCMOS integrated circuit for front-end RDS decoder"

1992

[P.3] A. Baschirotto, R. Castello, and F. Montecchi
"Zero-placement technique for IIR switched-capacitor anti-aliasing decimators"

[P.4] A. Baschirotto, R. Castello, and F. Montecchi
"IIR double-sampled switched-capacitor decimators for high-frequency applications"
IEEE Transactions on Circuits and Systems - vol. CAS-I 39, no. 4, April 1992, pag. 300-304

[P.5] A. Baschirotto, R. Castello, and F. Montecchi
"Finite gain compensated double-sampled switched-capacitor integrator for high-Q bandpass filters"

"Slew-rate enhancement techniques to be used with silicon calorimeters charge sensitive preamplifiers"

"Tunable BiCMOS continuous-time filters for high-frequency applications"
appears also in
"BiCMOS integrated circuit design", edited by M. I. Elmasry, IEEE Press, pag. 442-452

1993

[P.8] R. Castello, and A. Baschirotto
"Analog blocks in telecommunications systems"
Annales des Telecommunications - Vol. 48 - n. 7-8 - July-August 1993 - pag. 413-419

"Development of a new monolithic fast preamplifier to be used in LHC radiation environment"

1994

[P.10] A. Baschirotto, R. Castello, and F. Montecchi
"Design strategy for low-voltage SC circuits"

"Monolithic bandpass RC-CR filter for high-energy physics experiments"
IEE Electronics Letters - 28th April 1994, Vol. 30, no. 9, pag. 691-692
Elenco delle pubblicazioni di Andrea Baschirotto

"SC realization of anti-aliasing CCIR-601 video filters"

[2001] A. Baschirotto, F. Rezzi, R. Castello
"A low-voltage balanced transconductor with high input common-mode rejection"
IEE Electronics Letters - 29th September 1994, Vol. 30, no. 20 - pag. 1669-1671

1995

"Delay-shared N-path structures for video-rate SC FIR filters"

[2003] C. Samori, A. Baschirotto, V. Liberali
"Two-path structure for high-performance Sigma-Delta modulators"

"Radiation damage investigation for the design of a hardened fast bipolar monolithic charge sensitive preamplifier"

"Design and implementation of a monolithic bipolar read-out system"

"Radiation damage investigation for the design of a hardened fast bipolar charge sensitive preamplifier"

[2007] F. Rezzi, A. Baschirotto, and R. Castello
"3V 12-55MHz BiCMOS pseudo-differential continuous-time filter"
IEEE Transaction on Circuits and Systems - II - Nov. 1995 - pag. 896-903

[2008] R. Castello, F. Montecchi, F. Rezzi, and A. Baschirotto
"Low-voltage analog filter"
IEEE Transaction on Circuits and Systems - II - Nov. 1995 - pag. 827-840

[2009] A. Baschirotto, F. Montecchi and R. Castello
"A 15MHz 20mW BiCMOS switched-capacitor biquad operating with 150Ms/s sampling frequency"

1996

[2010] A. Baschirotto
"Considerations for the design of switched-capacitor circuits using precise-gain operational amplifiers"

"Radiation damage study of a fast bipolar monolithic charge sensitive preamplifier"
Nucl. Instrumentation and Methods in Physics Research - Sec. B - 114 (1996) 327-331

1997

"Effects of radiation fluences up to 10^{16} n/cm^2 and gamma doses up to 5Mrad on monolithic fast preamplifier"
Nucl. Instrumentation and Methods in Physics Research - Sec. B - 122 (1997) 73-78
Elenco delle pubblicazioni di Andrea Baschirotto

"Low-power BiCMOS continuous-time shaping filter"
IEEE Transaction on Circuits and Systems - II - vol. 44, no. 5 - May 1997 - pag. 404-406

[26] A. Baschirotto, G. Brasca, F. Montecchi, F. Stefani
"A low-power BiCMOS switched-capacitor filter for audio codec applications"
IEEE Journ. on Solid State Circuits - July 1997 - pag. 1127-1131

[27] L. Schillaci, A. Baschirotto, R. Castello
"A 3V 5.4mW BiCMOS Track&Hold circuit with sampling frequency up to 150MHz"
IEEE Journ. on Solid State Circuits - July 1997 - pag. 926-932

[28] A. Nagari, A. Baschirotto, F. Montecchi, R. Castello
"A 10.7 MHz BiCMOS high-Q double-sampled SC bandpass filter"
IEEE Journal of Solid State Circuits - October 1997 - pag. 1491-1498

[29] A. Baschirotto, R. Castello
"A 1V 1.8MHz CMOS Switched-opamp SC filter with rail-to-rail output swing"

1998

"A 3ns-resolution CMOS low-power time-to-voltage converter"

[31] A. Baschirotto, G. Boella, R. Castello, G. Pessina, E. Pistolesi, and P.G. Rancoita
"A low power dissipation front-end read-out for space instrumentation"

"A versatile high-speed bipolar charge sensitive preamplifier for calorimeter applications"

[33] A. Baschirotto, R. Castello, G.P. Montagna
"An active series switch for switched-opamp circuits"

1999

[34] A. Baschirotto, G. Boella, I. Cappelluti, R. Castello, M. Cermesoni, A. Gola, G. Pessina, E. Pistolesi, P.G. Rancoita, A. Seidman
"A radiation hard bipolar monolithic front-end readout"
Nuclear Instruments and Methods in Physics Research B 155 (1999), pag. 120-131

[35] A. Baschirotto, and R. Castello
"Low-voltage fully-differential switched-opamp bandpass \( \Sigma \Delta \) modulator"
IEE Proceedings - Circuits, systems and devices - Vol. 146 - no. 5 - Oct. 1999, pag. 249-253

[36] A. Gerosa, G.M. Cortelazzo, A. Baschirotto, and E. Malavasi
"2D Video Rate SC FIR Filters based on Analog RAMs"
IEEE Transactions on Circ. and Syst. - Part II - Vol. 46, No. 11 - Nov. 1999, pag. 1348-1360

2000

[37] L. Lentola, G.M. Cortelazzo, E. Malavasi, and A. Baschirotto
"Design of SC filters for video applications"

[38] A. Baschirotto
"A four-channel transimpedance amplifier for Compact Disk front-end"
Elenco delle pubblicazioni di Andrea Baschirotto

[43] A. Baschirotto, G. Brasca, V. Colonna, P. Cusinato, G. Gandolfi
"A Compact-Disc analog-to-digital front-end in BiCMOS technology"
IEEE Transactions on Consumer Electronics - May 2000 - pag. 343-352

F. Severi, A. Baschirotto, and R. Castello
"A 200Ms/s 10mW switched-capacitor filter in a 0.5µm CMOS technology"

2001

D. Tonietto, P. Cusinato, F. Stefani, and A. Baschirotto
"A 3.3V CMOS 10.7MHz 6th-order bandpass ΣΔ modulator with 74dB dynamic range"

V. Colonna, G. Gandolfi, A. Baschirotto
"A 3.3V CMOS laser driver system"

A. Baschirotto, G. Bollati, A. Fassina, F. Montecchi, F. Stefani
"A high-selectivity switched-capacitor bandpass filter"
IEEE Transactions on Circ. and Syst. - Part II - vol. 48, no. 4, April 2001, pp. 351-358

A. Baschirotto
"A low-voltage Sample&Hold circuit in standard CMOS technology operating at 40Ms/s"
IEEE Transactions on Circ. and Syst. - Part II - vol. 48, no. 4, April 2001, pp. 394-399

R. Cappelletti, and A. Baschirotto
"A Power Line FSK transceiver with reduced power consumption"

G. Ferri, A. Baschirotto
"Low-voltage rail-to-rail switched buffer topologies"

P. Cusinato, F. Stefani, A. Baschirotto
"Reducing the Power Consumption in High-Speed ΣΔ Bandpass Modulators"
IEEE Transactions on Circ. and Syst. - Part II - Vol. 48, no. 10, October 2001, pp. 952-960

2002

M. Annovazzi, V. Colonna, G. Gandolfi, F. Stefani, A. Baschirotto
"A low-power 88dB multibit audio DAC in a standard 3.3V 0.35µm CMOS technology"

2003

P. Malcovati, S. Brigati, F. Francesconi, F. Maloberti, P. Cusinato, A. Baschirotto
"Behavioral Modeling of Switched-Capacitor Sigma-Delta Modulators"

"A 2.5 rad/sec2 Resolution Digital Output MEMS-Based Rotational Accelerometer for HDD Applications"
IEEE Transactions on Magnetics - March 2003 - pp.915-919

G. Boarin, V. Colonna, G. Gandolfi, F. Stefani, A. Baschirotto
"90dB-DR 3.3V CMOS Single-Ended-to-Fully-Differential and Fully-Differential-to-Single-Ended Amplifiers for Audio Applications"
International Journal on Circuit Theory and Applications - vol.31 - May-June 2003 - pp. 315-328

A. Gola, E. Chiesa, E. Lasalandra, F. Pasolini, M. Tronconi, T. Ungaretti, A. Baschirotto
"Interface for MEMS-based rotational accelerometer for HDD applications with 2.5rad/sec2 resolution and digital output"
Elenco delle pubblicazioni di Andrea Baschirotto

"A 1-g Dual-Axis Linear Accelerometer in a Standard 0.5-µm CMOS Technology for High-Sensitivity Applications"

"A 35-mW - 3.6 mm2 fully integrated 0.18um CMOS GPS Radio"

[55] L. Lentola, A. Mozzi, A. Neviani, and A.Baschirotto
"A Dual Front-End for Pacemaker Atrial Sensing Channels with Early Sensing Capability"
IEEE Transactions on Circuits and Systems - Part II - August 2003 - pp. 397-403

[56] P. Cusinato, F. Pasolini, F. Stefani, A. Baschirotto
"A 6th-order 75dB-DR 10.7MHz 3.3V CMOS Bandpass ΣΔ Modulator sampled at 37.05MHz"

[57] A. Baschirotto, and P. Malcovati
"Technology-Driven Alternatives for Smart Sensor Interfaces"

[58] A. Baschirotto, S. Rusu
"Introduction to the Special Issue"

[59] M. Sala, F. Salidu, F. Stefani, C. Kutschenreiter, and A. Baschirotto
"Design Considerations and Implementation of a DSP-based Car-Radio IF Processor"

[60] V. Colonna, G. Gandolfi, F. Stefani, A. Baschirotto
"A 10.7MHz, Self-Calibrated, Switched-Capacitor Based, Multibit 2nd-Order Bandpass ΣΔ Modulator with On-Chip Switched-Buffer"

2005

[61] V. Colonna, M. Annovazzi, G. Boarin, G. Gandolfi, F. Stefani, A. Baschirotto
"A 0.22mm² 7.25mW per-channel audio stereo-DAC with 97dB-DR and 39dB-SNR\text{out}" 

"A high-precision wide-range front-end for resistive gas sensors arrays"

[63] S. D’Amico, A. Baschirotto
"Active-Gm-RC Continuous-Time Biquadratic Cells"
A. Baschirotto, E. Dallago, P. Malcovati, M. Marchesi and G. Venchi,
"Design and Characterization of a Family of Fluxgate Magnetic Sensors in PCB Technology”

2006

A. Baschirotto, A. Cabrini, E. Dallago, P. Malcovati, M. Marchesi, G. Venchi
"Development and analysis of a PCB Vector 2-D Magnetic Field Sensor System for Electronic
Compasses “

S. D’Amico, V. Giannini, A. Baschirotto
“A low-power reconfigurable analog filter for UMTS/WLAN receivers”

A. Baschirotto, F. Campi, R. Castello, G. Cesura, R. Guerrieri, L. Lavagno, A. Lodi, P. Malcovati, M. Toma,
“Baseband analog front-end and digital back-end for reconfigurable multi-standard terminals”
IEEE Circuits and Systems Magazine, Volume 6, Issue 1, First Quarter 2006, pp. 8 – 28

A. Baschirotto, E. Dallago, P. Malcovati, M. Marchesi, G. Venchi
“Development and comparative analysis of fluxgate magnetic sensor structures in PCB
technology”
IEEE Transactions on Magnetics, June 2006, pp. 1670 - 1680

S. D’Amico, V. Giannini, A. Baschirotto
“A 4th order Active-gm-RC Reconfigurable (UMTS/WLAN) Filter”

N. Ghittori, A. Vigna, P. Malcovati, S. D’Amico, A. Baschirotto
“1.2-V Low-Power Multi-Mode DAC+Filter Blocks for Reconfigurable (WLAN/UMTS, WLAN/Bluetooth) Transmitters”

N. Ghittori, A. Vigna, P. Malcovati, S. D’Amico, A. Baschirotto
“A 1.2V, 30.4dBm OIP3 Reconfigurable Analog Baseband Channel for UMTS/WLAN Transmitters”

A. Baschirotto, F. Borghetti, E. Dallago, P. Malcovati, M. Marchesi, E. Melissano, P. Siciliano, G. Venchi
“Fluxgate magnetic sensor and front-end circuitry in an integrated microsystem”

S. D’Amico, M. Conta, A. Baschirotto
“A 4.1mW 10MHz 4th-order source-follower-based continuous-time filter with 79dB-DR”

2007

C. Falconi, E. Martinelli, C. Di Natale, A. D’Amico, F. Maloberti, P. Malcovati, A. Baschirotto, V. Stornelli
and G. Ferri
“Electronic interfaces”
Sensors and Actuators B: Chemical, Volume 121, Issue 1 , 30 January 2007, pp 295-329

A. Baschirotto, E. Dallago, P. Malcovati, M. Marchesi, G. Venchi
“A Fluxgate Magnetic Sensor: From PCB to Micro-Integrated Technology”

F. Corsi, G. Matarrese, C. Marzocca, A. Dragone, A. Baschirotto, S. D’Amico
“Tuning of High-Speed Telecommunication Filters, via I/O Cross-Correlation Evaluation”
Elenco delle pubblicazioni di Andrea Baschirotto

[P.80] M. Grassi, P. Malcovati, A. Baschirotto
“An 160-dB Equivalent Dynamic Range Auto-Scaling Interface for Resistive Gas Sensors Arrays”

[P.81] D. Stoppa, M. Vatteroni, D. Covi, A. Baschirotto, A. Sartori, and A. Simonelli
“A 120-dB Dynamic Range CMOS Image Sensor With Programmable Power Responsivity”

[P.82] V. Giannini, J. Craninckx, S. D’Amico, and A. Baschirotto
“Flexible Baseband Analog Circuits for Software-Defined Radio Front-Ends”

[P.83] M. Grassi, P. Malcovati, and A. Baschirotto
“An 141-dB Dynamic Range CMOS Gas-Sensor Interface Circuit Without Calibration With 16-Bit Digital Output Word”

“A CMOS Ultra-Wideband Receiver for Low Data-Rate Communication”

2008

“A Clock-Less 10-bit Pipeline-Like A/D Converter for Self-Triggered Sensors”

"A Portable Integrated Wide-Range Gas Sensing System with Smart A/D Front-End”

“A CMOS 5nV/√Hz 74-dB-Gain-Range 82-dB-DR Multistandard Baseband Chain for Bluetooth, UMTS, and WLAN”

[P.88] A. Baschirotto, E. Dallago, P. Malcovati, M. Marchesi, E. Melissano, M. Morelli, P. Siciliano and G. Venchi,
“An Integrated Micro-Fluxgate Magnetic Sensor with Front-End Circuitry”,

[P.89] M. Grassi, P. Malcovati, L. Francioso, P. Siciliano and A. Baschirotto,
"Integrated Interface Circuit with Multiplexed Input and Digital Output for a 5 5 SnO2 Thick Film Gas-Sensor Matrix”,

[P.90] M. Grassi, P. Malcovati, G. De Iaco and A. Baschirotto,
"An Integrated Wide-Range Resistance-to-Time Converter with Decoupled Oscillator ”

[P.91] A. Baschirotto, E. Dallago, P. Malcovati, M. Marchesi and G. Venchi,
"Micro-Integrated Double Axis Planar Fluxgate”

[P.92] A. Baschirotto, E. Melissano, P. Siciliano, E. Dallago, P. Malcovati, M. Marchesi and G. Venchi,
"A 2-D Planar Micro-Fluxgate with Sputtered Core"

[P.93] M. Grassi, P. Malcovati, S. Capone, L. Francioso, P. Siciliano and A. Baschirotto,
"Gas Sensing System Consisting in MOX-Based Microsensors Interfaced to a Novel Integrated 5-Decade Dynamic Range Front-End”
2009


2010


[P.102] P. Malcovati, L. Picollì, L. Crespi, F. Chaahoub and A. Baschirotto "A 90-nm CMOS, 8-Bit Pipeline ADC with 60-MHz Bandwidth and 125-MS/s or 250-MS/s Sampling Frequency" Analog Integrated Circuits and Signal Processing, vol. 64, pp. 159-172, August 2010


2011


2012

“A fast and low noise charge sensitive preamplifier in 90 nm CMOS technology”
Journal of Instrumentation, January 2012

“A 255 MHz Programmable Gain Amplifier and Low-Pass Filter for Ultra Low Power Impulse-Radio UWB Receivers”

“A 65-nm, 1-A Buck Converter With Multi-Function SAR-ADC-Based CCM/PSK Digital Control Loop”

“Bidirectional Communication System on Power Line Integrated on Electronic Board for Driving of LED and HID Lamps”
Advances in Power Electronics, Volume 2012 (2012), Article ID 872383

“A Digitally Modulated Class-E Polar Amplifier in 90 nm CMOS”
IEEE Transactions on Circuits and Systems – I Regular Papers

“A 16 bit 20 kHz bandwidth discrete-time ΣΔ modulator with VCO-based quantizer “
Analog Integrated Circuits and Signal Processing, Volume 72, Number 3 (2012), 521-529

[P.112] P. Malcovati, M. Grassi, A. Baschirotto
“Towards High-Dynamic Range CMOS Integrated Interface Circuits for Gas Sensors”
Sensors and Actuators B: Chemical, Available online 10 October 2012